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CORPORATION

19 CROSBY DRIVE
BEDFORD, MASSACHUSETTS 01730
617-275-2970

JUL 27 1990

C-583-7-0-159

July 23, 1990

Mr. Tom Moyer
Agency of Natural Resources
Department of Environmental Conservation
Hazardous Materials Management Division
103 South Main Street
Waterbury, Vermont 05676

Subject: Final Screening Site Inspection
Vermont Tissue
Bennington, Vermont
TDD No. F1-8903-17
Reference No. \$375VT581\$
CERCLIS No. VTD059373316

Dear Mr. Moyer:

Enclosed are three copies of the Final Screening Site Inspection package for the Vermont Tissue facility, located in Bennington, Vermont. This Final Screening Site Inspection package has been revised according to comments received. Unaddressed comments have been incorporated in the NUS/FIT project file.

If you have any questions, please do not hesitate to call.

Sincerely,

Paul Young
Project Manager

PY:aa

Enclosure

cc: D. Smith/EPA-RPO (w/o enclosure)
J. Weiss (w/o enclosure)



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Bennington, Vermont**

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INTRODUCTION

The NUS Field Investigation Team (NUS/FIT) was requested by the Region I U.S. Environmental Protection Agency (EPA) Waste Management Division to perform a Screening Site Inspection of Vermont Tissue in Bennington, Vermont. All tasks were conducted in accordance with Technical Directive Document (TDD) No. F1-8903-17 which was issued to NUS/FIT on March 30, 1989. The Vermont Agency of Natural Resources (VT ANR) performed a Preliminary Assessment of this property in March 1988. On the basis of information provided in this Preliminary Assessment, the Vermont Tissue Screening Site Inspection was initiated.

Background information used in the generation of this report was obtained through file searches conducted at the VT ANR and at the EPA. Information was also collected during the onsite reconnaissance and field sampling activity conducted by NUS/FIT on October 11, 1989.

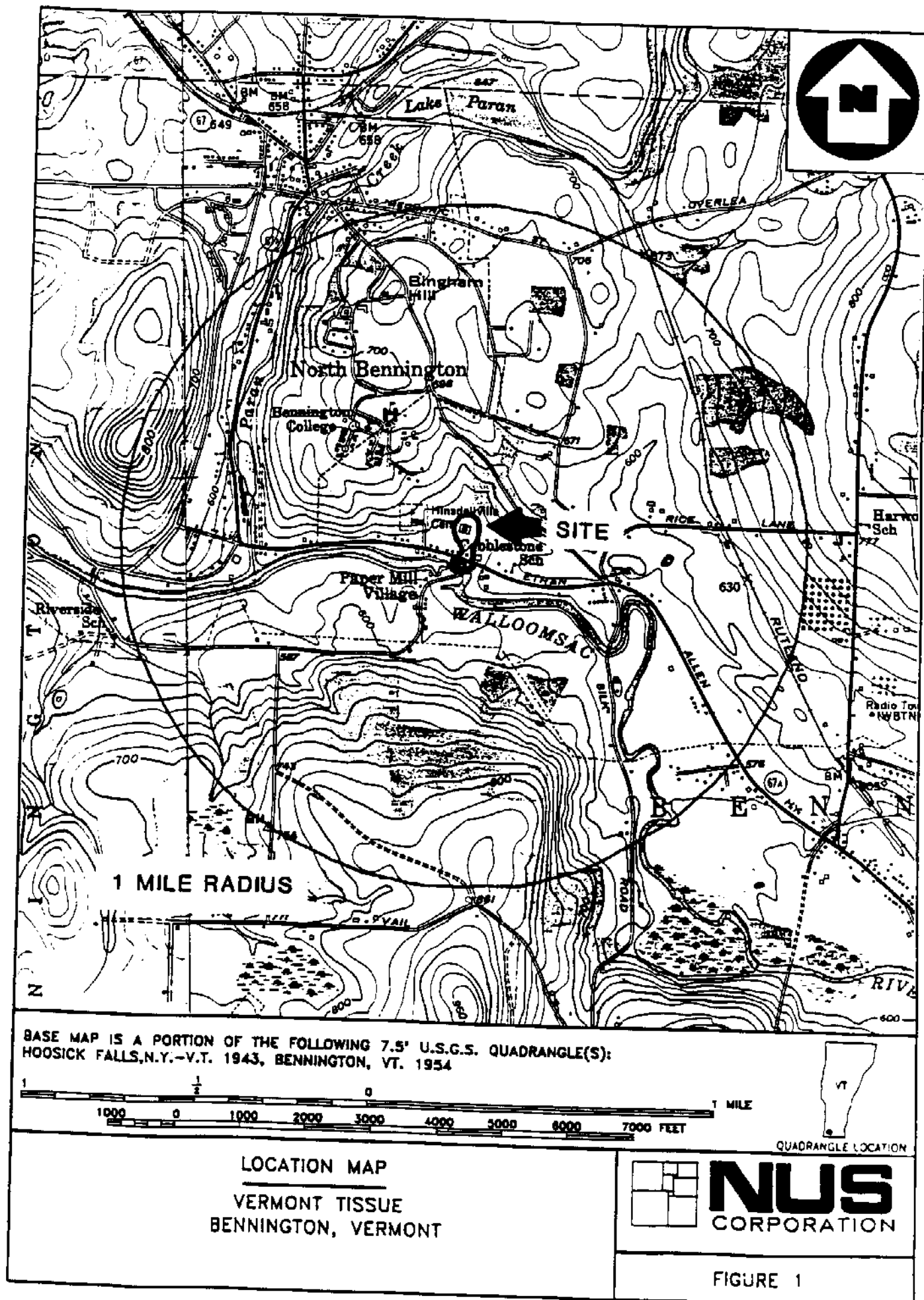
This package follows guidelines developed under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, commonly referred to as Superfund. However, these documents do not necessarily fulfill the requirements of other EPA regulations such as those under the Resource Conservation and Recovery Act (RCRA) or other federal, state or local regulations. Screening Site Inspections are intended to provide a preliminary screening of sites to facilitate EPA's assignment of site priorities. They are limited efforts and are not intended to supersede more detailed investigations.

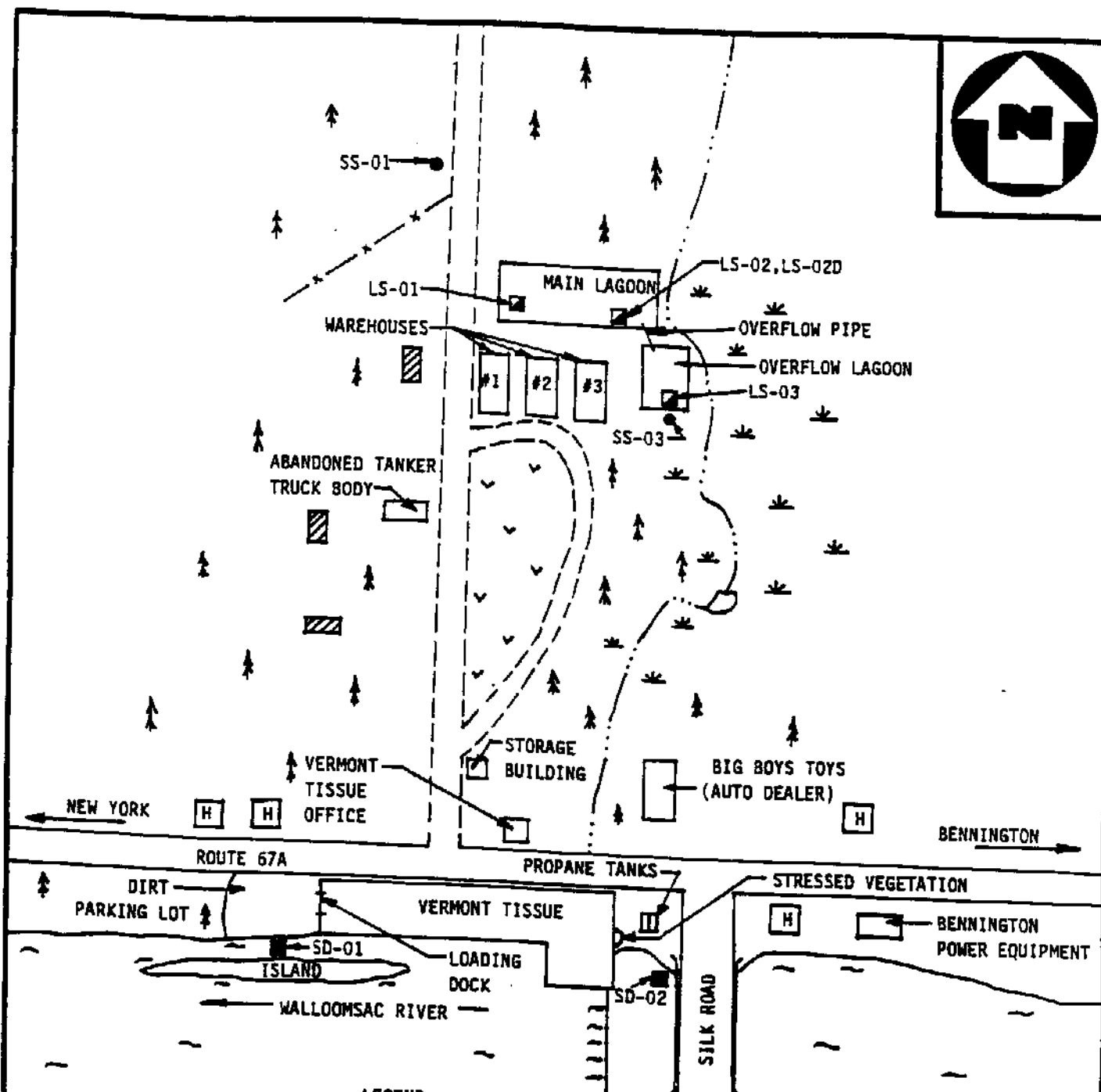
SITE DESCRIPTION

Vermont Tissue is located along Route 67A, 4 miles northwest of the center of Bennington (pop. 14,700) and 2 miles southeast of the village of North Bennington (pop. 2,000), Vermont (Young, 1990b; USGS, 1954a) (Figure 1).

From 1940 to 1986, Vermont Tissue produced a low-grade tissue paper and used a system of unlined lagoons to contain wastewater generated in the tissue paper process. In 1986, Vermont Tissue ceased production of the low-grade tissue paper and use of the lagoon system. Vermont Tissue currently rewinds paper onto smaller rolls.

The site is approximately 12 acres in size and contains six buildings and two lagoons. The paper mill building is located on the south side of Route 67A and abuts the Walloomsac River. The office, storage building, warehouses and lagoons are located on the north side of Route 67A. The property is bounded by Bennington College less than 0.5 miles to the northwest and residential homes directly to the west. Commercial and residential areas are located to the east. On the south side of Route 67A, the brick paper mill building is bounded by Silk Road and commercial and residential areas to the east, the Walloomsac River to the south and a wooded area to the west (NUS/FIT, 1989) (Figure 2).





NOT TO SCALE

SITE SKETCH

VERMONT TISSUE
BENNINGTON, VERMONT



FIGURE 2

Located at the east end of the paper mill building is a large propane tank and three transformers attached to a telephone pole. Stained soil was observed at this location close to the side of the Vermont Tissue building during the NUS/FIT reconnaissance (NUS/FIT, 1989).

The three warehouses are set back from Route 67A. The rewound paper rolls are stored in the warehouses pending shipment. The main lagoon (175 feet by 225 feet) is located to the north behind the warehouses. The main lagoon had assorted vegetation growing on the lagoon sludge at the time of the NUS/FIT field activity. Vegetation covered various sections of the lagoon with no set pattern. Small fragments of paper were observed in the lagoon in addition to a milky- white colored water that had accumulated in low areas. The lagoon berms are approximately 5 to 6 feet in height. No signs of breaching were observed on any perimeter. Vegetation was prolific on the lagoon berms and throughout the surrounding property. The lagoon sludge was grayish in color and was very viscous in consistency when sampled (NUS/FIT, 1989). The lagoon depth could not be determined from available file information.

The overflow lagoon (50 feet by 100 feet) is located to the east of the warehouses and southeast of the main lagoon. The area in the overflow lagoon was heavily vegetated with small trees and shrubs predominating. The berms are less than 5 feet in height. Small fragments of paper were intermingled with the soil. The sludge was soft in some areas sampled. The top 2 inches of some lagoon sludge samples was gray, which graded to a coarse-grained dark colored soil below 2 inches. There were no signs of stressed vegetation or stained soil in the lagoon and warehouse areas. Access to the lagoon system is unrestricted. An intermittent stream was located to the east of the lagoon system during the NUS/FIT reconnaissance and sampling (NUS/FIT, 1989) (Figure 2).

A house trailer was located on the west side of the warehouses across a dirt road. The house trailer is on Vermont Tissue property and is owned by an employee of Vermont Tissue. A large unused underground oil tank was observed above-ground behind the storage building located northwest of the office. An abandoned tanker truck body was also observed on the west side of the dirt road leading to the warehouses and lagoons. What appeared to be a bermed pit was observed to the north of the house trailer. According to the president of Vermont Tissue, waste paper bales were stored in this area before the warehouses were built. A large coal pile was also situated in this area at one time (NUS/FIT, 1989).

SITE ACTIVITY/HISTORY

Vermont Tissue has been at its current location since approximately 1900. Prior to 1940, Vermont Tissue produced various paper products. The processes used prior to 1940 were not available in state files. Vermont Tissue produced a low-grade tissue paper from at least 1940 until February 1986. The low-grade tissue paper was produced from recycled paper products. Currently, Vermont Tissue purchases large rolls of paper and rewinds them onto smaller rolls. During the sampling round on October 11, 1989, NUS/FIT personnel observed that Vermont Tissue had started to produce printed paper on a limited basis for sale to the floral industry (NUS/FIT, 1989).

The process used by Vermont Tissue to produce the low-grade tissue paper required that articles such as newspapers and magazines be shredded, mixed with water and beaten into a pulp slurry. No dyes or bleaching agents are reported to have been used in the recycling process. The slurry was then pressed into a mat, passed through a vacuum box and steam dryers, and wound onto a reel. The water recovered from the drying process was the wastewater that was discharged to the onsite lagoons (VT ANR, 1988b).

Initially, wastewater from the recycling process was discharged directly into the Walloomsac River. The onsite lagoons are owned by Heller and Usdan of Moonachie, New Jersey, the parent company of Vermont Tissue and were constructed in the early to mid 1960s. After the lagoons were constructed, the wastewater was taken by tanker truck to the lagoons and discharged. More recently (date

July 23, 1990

unknown), an underground pipeline was used to discharge wastewater into the lagoons. In 1984, approximately 50,000 gallons/day were discharged to the lagoons. Vermont Tissue had a National Pollutant Discharge Elimination System (NPDES) permit for discharging into the Bennington wastewater treatment plant and did so for about 1.5 years in the early 1970's; however, the company eventually resumed using lagoons. From 1980 to 1985, Vermont Tissue had a NPDES permit (#VT0020524) (VT ANR, 1988b). All discharge was discontinued in 1986. Discharging methods overall have taken place for approximately 20 years.

Information on file at the VT ANR does not indicate the presence of liners beneath the lagoons. The lagoons were originally designed to function by infiltration and evaporation of wastewater. On April 8, 1975, and in the spring of 1984, during site visits by the Vermont Department of Water Resources and the VT AEC, respectively, it was observed that portions of the berm on the south end of the overflow lagoon had given way due to a "high water flow event" and that lagoon sludge was draining into a swamp and a small stream (Ouellette, 1975; Fitzgerald, 1984). Lagoon sludge and wastewater samples were collected by the VT ANR in September 1984 and June 1985. A Preliminary Assessment was prepared by the VT ANR in 1988 and recommended that a Site Inspection be performed at a medium priority. NUS/FIT, accompanied by the VT ANR, collected environmental samples at the Vermont Tissue property in October 1989.

Vermont Tissue was not listed as a RCRA notifier in the Hazardous Waste Data Management System (HWMS) Master Facility Listing, and information in state files regarding the characteristics of the waste generated by Vermont Tissue was not available (U.S. EPA, 1988). Characterization and qualification of wastes as RCRA hazardous waste can be accomplished by E.P. Toxicity, a laboratory analytical procedure. However, this analytical procedure was not performed on samples collected by NUS/FIT in October 1989.

ENVIRONMENTAL SETTING

The Bennington region is located physiographically in the Taconic Mountains, Vermont Valley, and Green Mountain sections of the New England Province (MacFayden, 1956). The city of Bennington is built on an area of extensive glacial outwash deposits (Shilts, 1966). Vermont Tissue is located in the Vermont Valley. The area around Vermont Tissue is comprised of forested rolling hills. The land use is rural residential and agricultural in most of the surrounding area (VT ANR, 1988b).

The area in and around the Vermont Tissue facility is underlain by thick deposits of coarse-grained stratified sediments and is inferred to have excellent groundwater potential (VT Department of Water Resources, 1966; VT Geological Survey, 1970).

Major geological structures in the area surrounding Vermont Tissue consist of a plunging anticline located approximately 0.5 miles northwest and a thrust fault located 0.75 miles southeast (MacFayden, 1956). Due to the large amount of sediments in the vicinity of the facility, the bedrock is inferred to consist of Paleozoic sediments or metasedimentary rock structures such as dolomite, limestone, quartzite, gneiss and slate which have been folded and fractured (MacFayden, 1956; Wright, 1975; USGS, 1983).

Depth to groundwater of the shallow surficial aquifer in the vicinity of the site is less than 25 feet below ground surface. Buildings on the south side of Route 67A are supplied water mainly by using well points or dug wells (VT ANR, 1988b). Available well logs indicate that several homes on the north side of Route 67A have bedrock wells. The closest downgradient well to the lagoons is a dug well (presumably overburden) serving Big Boys Toys, an auto store. This well is approximately 600 feet south southeast from the lagoons (VT ANR, 1988b).

Towns within 4 miles of Vermont Tissue include Bennington, North Bennington, Shaftsbury, and Hoosick, New York. Approximately 13,000 people residing in Bennington receive their water from

the Bolles Brook Reservoir located in Woodford, Vermont. However, Bolles Brook Reservoir is not located downstream from the facility. The backup water supply for Bennington is Morgan Spring which is located within 4 miles of Vermont Tissue. Table 1 lists community water supplies within a 4-mile radius of Vermont Tissue. Vermont Tissue receives its water from a spring located at Bennington College (VT ANR, 1988b). Only a small portion of Hoosick, New York is located within 4 miles of Vermont Tissue (Young, 1989). NUS/FIT has not determined the exact number of people served by private wells within 4 miles of Vermont Tissue, although the number is estimated to be about 3,000.

Review of aerial photos by the VT ANR indicates that the Vermont Tissue lagoons may be located in an old meander of the Walloomsac River. An intermittent stream flows southeasterly through the property and through a small wetland located a few feet east of the lagoons before discharging into the Walloomsac River (VT ANR, 1988a). From the Vermont Tissue property the Walloomsac River flows west 5 downstream miles through the villages of Walloomsac and North Hoosick, New York. From this point, the Walloomsac River flows 1 mile west/northwest until it converges with the Hoosic River just north of the village of Hoosick Junction (USGS, 1943; 1954a; 1954a; Anonymous, 1988). From this point the Hoosic River flows northwestward through the Taconic Mountains to the convergence of Whiteside Creek at approximately 15 miles downstream (Shilts, 1966). The Walloomsac River is used for fishing, and some swimming and canoeing (Young, 1990b).

The Vermont Natural Heritage Program (VT NHP) lists two species of special concern that are found in the Bennington Quadrangle: the Handsome Sedge (Carex formosa) and the Hairy Honeysuckle (Lonicera hirsuta) (Elliott, 1989).

RESULTS

The VT ANR collected wastewater samples from the pipeline outfall pipe in September 1984. Laboratory analysis detected benzene at 1 part per billion (ppb) and toluene at 4 ppb, and eight inorganic elements at total concentrations ranging from 2 ppb to 2820 ppb in one of the samples (Attachment G).

The VT ANR also collected lagoon sludge, and a wastewater sample from the pipeline outfall pipe in June 1985. Sludge samples were analyzed for total and dissolved metals and volatile organic compounds, and the wastewater sample was analyzed for dissolved metals and volatile organic compounds. The total concentration of elements ranged from 1 ppm to 347.0 ppm (zinc). Barium had the highest concentration of the seven dissolved metals detected (1525 ppb). No volatile organic compounds were detected (Attachment F).

In October 1989, the VT ANR collected two tap water samples from Big Boys Toys and a residential home, both of which are downgradient of the Vermont Tissue lagoons and are presumed to be dug wells (Attachment E) (VT ANR, 1989). No volatile organic compounds were detected in the tap water samples collected by the VT ANR. Maximum Contaminant Levels (MCLs) were not exceeded for the inorganic elements detected for which MCLs exist.

NUS/FIT collected two sediment samples, six lagoon sludge samples, including two dioxin blanks and one duplicate/replicate sample, and three soil samples including a blank and background sample in October 1989 (Table 2, Figure 2). A photoionization detector was used by NUS/FIT during field activities to monitor ambient air and detected no volatile organic or inorganic concentrations above the background concentration. A small area of stained soil was observed on the east side of the Vermont Tissue mill building.

All samples were analyzed for full organic compounds and inorganic elements. The lagoon sludge samples were also analyzed for dioxin and furan isomers. All samples were analyzed through the EPA Contract Laboratory Program (CLP). The complete analytical results and sample

TABLE 1

Community Water Supplies Within 4 Miles Of Vermont Tissue

<u>Town</u>	<u>Public Supply Source</u>	<u>Appr. Distance/ Direction From Site</u>		<u>Estimated Pop. Served</u>	<u>Well type/ Depth</u>
Bennington (1)	Morgan Spring	3.5 miles	SE	13,000 (Backup Source)	Spring
Bennington (1)	Chapel Hill Trailer Park	3.0 miles	NE	80	Spring
Bennington (1)	Unabella Trailer Park-West Road 2 Wells	3.0 miles	S	82	Bedrock/390 feet
Total Population Served				<hr/> 13, 162	

Reference

(1) Young, 1990a

TABLE 2
SAMPLE SUMMARY
Vermont Tissue
Bennington, Vermont

Sediment, soil and lagoon sludge samples collected by NUS/FIT on October 11, 1989.

<u>Sample Location</u>	<u>Sample No./ Traffic Report Nos.</u>	<u>Remarks</u>	<u>Sample Source</u>
SD-01	22531/ AQ775 MAN051	grab	N75°W, 60 feet from SW corner of the Vermont Tissue building.
SD-02	22532/ AQ776 MAN052	grab	S50°W, 55 feet from telephone pole at the SE corner of the Vermont Tissue building. Background.
LS-01	22533/ AQ777 MAN053 DA012015	grab 1.5 ft.	N25°W, 100 feet from NW corner of warehouse #3.
LS-02	22534/ AQ778 MAN054 DA012016	grab 1.5 ft.	N49°E, 55 feet from NE corner of warehouse #3.
LS-02D/R	22535/ AQ779 MAN055 DA012017	grab 1.5 ft.	Same as LS-02. Volatiles collected as replicates, semi-volatiles and inorganics collected as duplicates.
LS-03	22536/ AQ780 MAN056 DA012018	grab 8 in.	Due east, 85 feet from SE corner of warehouse #3.
LS-04	22540/ DA012019	grab	Dioxin blank for quality control.
LS-05	22541/ DA012020	grab	Dioxin blank for quality control.
SS-01	22538/ AQ781 MAN058	composite/ grab 1 ft.	N10°W, 100 feet from NW corner of warehouse #3. Background.

<u>Sample Location</u>	<u>Sample No./ Traffic Report Nos.</u>	<u>Remarks</u>	<u>Sample Source</u>
SS-02	22539/ AQ782	grab	Soil blank for quality control.
SS-03	22537/ AQ783 MAN058	grab 1.5 ft.	S71°E, 90 feet from SE corner of warehouse #3.

KEY:

AQ	-	denotes organic traffic report number
MAN	-	denotes inorganic traffic report number
DA	-	denotes dioxin traffic report number
SD	-	sediment sample
LS	-	lagoon sludge sample
SS	-	soil sample

NOTE: N75°W indicates magnetic compass bearing from known reference to sample location.
Example: N75°W indicates sample location is on a bearing 75° W of North.

quantitation/detection limits are provided in Attachments A - D. In addition to the complete analytical tables, a sample results summary table has been included in the text as Table 3. The results summary table compares any compound or element detected to the appropriate background (or upstream) sample. The table summarizes compounds or elements detected at greater or equal to three times the background sample concentration. However, if the element or compound was not detected in the background sample then the background sample quantitation/detection limit for that compound or element is used as a reference. If the concentration does not exceed three times the background sample detection limit, the element or compound is listed as being "Detected". Please note that samples from LS-01, LS-02 and LS-02D/R were primarily sludge, therefore, the analytical results were not compared to a reference value.

The soil sample from SS-03 was collected south of the overflow lagoon to determine whether contaminants had been released to the ground surface where the berm was breached. Four inorganic elements were detected at concentrations 3 to 56 times the background concentration.

Three inorganic compounds were detected in the sediment sample from location SD-01 at concentrations ranging from detected to 11 times the background or background detection limit. No volatile organic or semi-volatile organic compounds were detected in the sediment sample.

The lagoon sludge sample from LS-03 collected from the overflow lagoon, was primarily soil. The concentration of compounds detected are compared to the soil background sample. Two inorganic elements were detected at concentrations ranging from 4 to 149 times the background.

Results of samples collected from the main lagoon (LS-01, LS-02(D/R)) indicates that the sludge is contaminated with six inorganic elements ranging from 67.10J parts per million (ppm) to 910.00 ppm. Phthalates were detected in the lagoon sludge samples at concentrations ranging from 1800J ppb to 180,000J ppb. Phthalates compose a large portion of the semivolatile organic compounds and are derived from the use of plasticizers. Toluene was detected at 26,000 ppb from LS-01. The origin of this volatile organic compound is not known.

The greatest number of compounds were detected from LS-01, in the main lagoon near the discharge pipe area. The least number were detected in the overflow lagoon.

Three dioxin isomers were detected in the lagoon sludge samples at concentrations ranging from 0.09 to 20.37 ppb (Attachments C and D).

The most toxic dioxin isomer is 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) with a toxicity equivalency factor (TEF) of 1. The dioxin/furan isomers detected have a TEF of less than 1. The toxicity of the dioxin/furan compounds detected at each sample location is a cumulative toxicity expressed as a 2,3,7,8-TCDD equivalence. The 2,3,7,8-TCDD equivalence for lagoon sludge samples collected at LS-01, LS-02, LS-02D/R, and LS-03 are 0.035 ppb, 0.02 ppb, 0.03 ppb, and 0.018 ppb, respectively.

There are no established numerical values for permissible exposure limits in air or permissible concentrations in water for dioxin. Dioxins persist in the environment and bioaccumulate in organisms (Sittig, 1981).

SUMMARY

Vermont Tissue produced a low-grade tissue paper for approximately 46 years from 1940 to 1986. No dyes or bleaches are known to have been used in the process. Wastewater from the process was discharged to two onsite lagoons for approximately 20 years. Access to the lagoons is unrestricted. The lagoons were designed to function by infiltration and evaporation of the wastewater. For an unknown period of time before the lagoons' construction, the wastewater was discharged to the Walloomsac River. Site inspections by the State of Vermont in 1975 and 1984 indicated that portions

TABLE 3
Sample Results Summary Table
Vermont Tissue Sampling October 11, 1989.

<u>Sample Location</u>	<u>Compound/Element</u>	<u>Concentration</u>		<u>Attachment A/ Analytical Table #</u>	<u>Comments</u>
SD-01	Calcium	31,000.00	ppm	3	5 times BK
	Copper	15.7	ppm	3	Detected
	Lead	354.00J	ppm	3	11 times BK
LS-03*	Bis(2-ethylhexyl)phthalate	2,400 J	ppb	2	6 times BKQL
	Calcium	11,400	ppm	3	49 times BK
	Lead	70.6 J	ppm	3	4 times BK
SS-03	Di-n-butylphthalate	620	ppb	2	Detected
	Bis(2-ethylhexyl)phthalate	620	ppb	2	Detected
	Antimony	67.2 J	ppm	3	4 times BKDL
	Cadmium	5.1	ppm	3	5 times BKDL
	Calcium	12,900	ppm	3	56 times BK
	Lead	54 J	ppm	3	3 times BK
LS-01*	Toluene	26,000	ppb	1	
	Ethylbenzene	25	ppb	1	
	Xylene	6	ppb	1	
	Di-n-butylphthalate	3,200	ppb	2	
	Bis(2-ethylhexyl)phthalate	150,000 J	ppb	2	
	4-Methylphenol	8,700 J	ppb	2	
	Antimony	91.7 J	ppm	3	
	Chromium	75.3	ppm	3	
	Copper	178	ppm	3	
	Lead	320 J	ppm	3	
	Zinc	385	ppm	3	

TABLE 3 (Continued)
Sample Results Summary Table
Vermont Tissue Sampling October 11, 1989.

<u>Sample Location</u>	<u>Compound/Element</u>	<u>Concentration</u>	<u>Attachment A/Analytical Table #</u>	<u>Comments</u>
LS-02*	Bis(2-ethylhexyl)phthalate	41,000 J	ppb	2
	Calcium	910	ppm	3
	Lead	151 J	ppm	3
LS-02D/R*	Di-n-butylphthalate	1,800 J	ppb	2
	Bis(2-ethylhexyl)phthalate	180,000 J	ppb	2
	Antimony	67.1 J	ppm	3
	Calcium	841	ppm	3
	Copper	119	ppm	3
	Lead	150 J	ppm	3

SS = Soil Sample

SD = Sediment Sample

LS = Lagoon Sludge Sample

ppm = parts per million

ppb = parts per billion

BKQL = Background Quantitation Limit

BKDL = Background Detection Limit

BK = Background

J = Quantitation is approximate due to limitations identified during the Quality Control Review.

Detected = Compound/Element Detected. Sample concentration does not exceed 3 times the background sample concentration or detection/quantitation limit for this compound or element.

* = Lagoon sludge samples were analyzed for Dioxin and Furan Isomers. Analytical results can be found in Attachments C and D.

of the overflow lagoon berms had given way, sending wastewater into a swamp and small stream that abut the east side of the lagoons. Wastewater samples collected by the VT ANR in 1984 indicated the presence of benzene and toluene. The VT ANR collected lagoon sludge and a wastewater sample in 1985. Analysis indicated that seven inorganic elements were detected including barium and lead.


Two organic compounds were detected in soil samples collected by NUS/FIT. One of the two organic compounds, bis(2-ethylhexyl)phthalate was detected at 6 times the background reference value. Four inorganic compounds, antimony, cadmium, calcium and lead, were detected at concentrations ranging from 3 to 56 times background. Calcium and lead were detected at concentrations of 5 and 11 times the background, respectively, in the sediment sample collected by NUS/FIT.

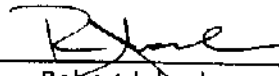
Toluene was detected at 26,000 ppb at lagoon sludge sample location LS-01. Lead was detected at all the lagoon sludge sample locations at 150 J ppm to 320 J ppm. Dioxin isomers were detected in all of the lagoon sludge samples. Dioxin is associated with pulp and paper mill processes (U.S. EPA, 1987).

The Walloomsac River is a major receptor in the Vermont Tissue area and is used for fishing, canoeing and some swimming and is approximately 700 feet south of the lagoons. Over 13,100 people depend on private and municipal water services for their water supply in towns within 4 miles. The closest water well to the lagoons is approximately 600 feet south southeast. The VT ANR collected a tap water sample from this well during the NUS/FIT field activities on October 11, 1990. Laboratory results were within the current MCLs for all compounds/elements for which MCLs exist.

Based on the current analytical analyses from samples collected in October 1989, NUS/FIT recommends that a Listing Site Inspection (LSI) be performed.

Submitted By:


Paul Young
Project Manager

Approval: 
Robert Jubach
FIT Office Manager

PY:aa

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Young, P. (NUS/FIT). 1989. Telecon with Bill (Hoosick, NY Town Highway Department) RE: Water supply for Hoosick and surrounding area. TDD No. F1-8903-17, June 13.

Young, P. (NUS/FIT). 1990a. Telecon with D. Shepard, (VT ANR) RE: Public Water Supply-Bennington, Vermont. TDD No. F1-8903-17, January 15, 1425 hours.

Young, P. (NUS/FIT). 1990b. Telecon with P. Bohne, Bennington, Vermont, (Community Development Director) RE: Population of Bennington, North Bennington and uses of the Wallomsac River. TDD No. F1-8903-17, January 23, 0930 hours.

LIST OF ATTACHMENTS

- ATTACHMENT A:** Soil Sample CLP Analytical Results.
NUS/FIT October 11, 1989.
- ATTACHMENT B:** Soil Sample Organic and Inorganic
Quantitation/Detection Limits.
- ATTACHMENT C:** Dioxin/Furan Sample Analytical Results.
NUS/FIT October 11, 1989.
- ATTACHMENT D:** Dioxin/Furan Sample Detection Limits.
- ATTACHMENT E:** VT ANR Sampling Results October 11, 1989.
- ATTACHMENT F:** VT ANR Sampling Results June 12, 1985.
- ATTACHMENT G:** VT ANR Sampling Results September 14, 1984.

ATTACHMENT A

Soil Sample CLP Analytical Results
NUS/FIT October 11, 1989

Table 1 - Volatile Organic Sampling Results

Table 2 - Extractable Organic Sampling Results

Table 3 - Inorganic Sampling Results

TABLE 1 PAGE 1 OF 1
VERMONT TISSUE
OCTOBER 11, 1989
CLP VOLATILE ORGANIC ANALYSIS
CASE NO. 12940, SDG NO. AQ775
SOIL/SEDIMENT/SLUDGE ANALYTICAL RESULTS
(ug/Kg)

Sample Location	SS-01	SS-02	SS-03	SD-01	SD-02	LS-01	LS-02	LS-02R	LS-03
Sample Number	22538	22539	22537	22531	22532	22533	22534	22535	22536
Traffic Report Number	AQ781	AQ782	AQ783	AQ775	AQ776	AQ777	AQ778	AQ779	AQ780
Remarks	Background	Blank						Replicate	
Sampling Date	11-OCT-89	11-OCT-89	11-OCT-89	11-OCT-89	11-OCT-89	11-OCT-89	11-OCT-89	11-OCT-89	11-OCT-89
Analysis Date	17-OCT-89	17-OCT-89	17-OCT-89	17-OCT-89	17-OCT-89	17-OCT-89	17-OCT-89	17-OCT-89	17-OCT-89
VOLATILE ORGANIC COMPOUND									
Chloromethane									
Bromomethane									
Vinyl Chloride									
Chloroethane									
Methylene Chloride									
Acetone		33							
Carbon Disulfide									
1,1-Dichloroethene									
1,1-Dichloroethane									
1,2-Dichloroethene (Total)									
Chloroform									
1,2-Dichloroethane									
2-Butanone									
1,1,1-Trichloroethane									
Carbon Tetrachloride									
Vinyl Acetate									
Bromodichloromethane									
1,2-Dichloropropane									
cis-1,3-Dichloropropene									
Trichloroethene									
Dibromochloromethane									
1,1,2-Trichloroethane									
Benzene									
trans-1,3-Dichloropropene									
Bromoform									
4-Methyl-2-pentanone									
2-Hexanone		10							
Tetrachloroethene									
1,1,2,2-Tetrachloroethane									
Toluene		5				26000			
Chlorobenzene									
Ethylbenzene		5				25			
Styrene									
Xylene (Total)						6			
Total VOC Concentration (ug/Kg)		53				26031			

A blank space indicates the volatile organic compound (VOC) was not detected.
Sample results are reported on a dry weight basis.

Sample Quantitation Limits for the compounds listed above are reported in Attachment B Table 1.

TABLE 2 PAGE 1 OF 2
VERMONT TISSUE
OCTOBER 11, 1989
CLP EXTRACTABLE ORGANIC ANALYSIS
CASE NO. 12940, SDG NO. AQ775
SOIL/SEDIMENT/SLUDGE ANALYTICAL RESULTS
(ug/Kg)

Sample Location	SS-01	SS-03	SD-01	SD-02	LS-01	LS-02	LS-02D	LS-03	
Sample Number	22538	22537	22531	22532	22533	22534	22535	22536	
Traffic Report Number	AQ781	AQ783	AQ775	AQ776	AQ777	AQ778	AQ779	AQ780	
Remarks	Background						Duplicate		
Sampling Date	11-OCT-89	11-OCT-89	11-OCT-89	11-OCT-89	11-OCT-89	11-OCT-89	11-OCT-89	11-OCT-89	
Extraction Date	19-OCT-89	19-OCT-89	19-OCT-89	19-OCT-89	21-OCT-89	21-OCT-89	21-OCT-89	19-OCT-89	
Analysis Date	13-NOV-89	14-NOV-89	13-NOV-89	13-NOV-89	14-NOV-89	14-NOV-89	14-NOV-89	13-NOV-89	
SEMI-VOLATILE COMPOUND									
Phenol					8700 J				
bis (2-Chloroethyl) ether									
2-Chlorophenol									
1,3-Dichlorobenzene									
1,4-Dichlorobenzene									
Benzyl Alcohol									
1,2-Dichlorobenzene									
2-Methylphenol									
bis (2-Chloroisopropyl) ether									
4-Methylphenol									
N-Nitroso-di-n-propylamine									
Hexachloroethane									
Nitrobenzene									
Isophorone									
2-Nitrophenol									
2,4-Dimethylphenol									
Benzoic acid									
bis (2-Chloroethoxy) methane									
2,4-Dichlorophenol									
1,2,4-Trichlorobenzene									
Naphthalene									
4-Chloroaniline									
Hexachlorobutadiene									
4-Chloro-3-methylphenol									
2-Methylnaphthalene									
Hexachlorocyclopentadiene									
2,4,6-Trichlorophenol									
2,4,5-Trichlorophenol									
2-Chloronaphthalene									
2-Nitroaniline									
Dimethylphthalate									
Acenaphthylene									
2,6-Dinitrotoluene									

TABLE 2 PAGE 2 OF 2
VERMONT TISSUE
OCTOBER 11, 1989
CLP EXTRACTABLE ORGANIC ANALYSIS
CASE NO. 12940, SDG NO. AQ775
SOIL/SEDIMENT/SLUDGE ANALYTICAL RESULTS
(ug/Kg)

Sample Location	SS-01	SS-03	SD-01	SD-02	LS-01	LS-02	LS-020	LS-03	
Sample Number	22538	22537	22531	22532	22533	22534	22535	22536	
Traffic Report Number	AQ781	AQ783	AQ775	AQ776	AQ777	AQ778	AQ779	AQ780	
Remarks	Background						Duplicate		
SEMI-VOLATILE COMPOUND									
3-Nitroaniline									
Acenaphthene									
2,4-Dinitrophenol									
4-Nitrophenol									
Dibenzofuran									
2,4-Dinitrotoluene									
Diethylphthalate									
4-Chlorophenyl-phenylether									
Fluorene									
4-Nitroaniline									
4,6-Dinitro-2-methylphenol									
N-Nitrosodiphenylamine									
4-Bromophenyl-phenylether									
Hexachlorobenzene									
Pentachlorophenol									
Phenanthrene				260 J					
Anthracene				620	32000		1800 J		
Di-n-butylphthalate		620		380 J					
Fluoranthene				380 J					
Pyrene									
Butylbenzylphthalate									
3,3'-Dichlorobenzidine									
Benzo(a)anthracene				190 J					
Chrysene				200 J					
bis(2-Ethylhexyl)phthalate		620		620	150000 J	41000 J	180000 J	2400 J	
Di-n-octyl phthalate									
Benzo(b)fluoranthene				180 J					
Benzo(k)fluoranthene				190 J					
Benzo(a)pyrene				190 J					
Indeno (1,2,3-cd)pyrene				70 J					
Dibenz(a,h)anthracene									
Benzo(g,h,i)perylene				77 J					

A blank space indicates the compound was not detected.
Sample results are reported on a dry weight basis.
J Quantitation is approximate due to limitations identified during the quality control review.
Sample Quantitation Limits for the compounds listed above are reported in Attachment B Table 2.

TABLE 3 Page 1 of 1
 VERMONT TISSUE
 OCTOBER 10-11, 1989
 CLP INORGANIC ANALYSIS
 CASE NO. 12940, SDG NO. MAN051
 SOIL/SEDIMENT/SLUDGE ANALYTICAL RESULTS
 (mg/Kg)

Sample Location		SS-01	SS-03	SD-01	SD-02	LS-01	LS-02	LS-02D	LS-03
Sample Number		22538	22537	22531	22532	22533	22534	22535	22536
Traffic Report Number		MAN057	MAN058	MAN051	MAN052	MAN053	MAN054	MAN055	MAN056
Remarks		Background						Duplicate	
Inorganic Elements									
Aluminum	P	19800.00	11700.00	3990.00	5300.00	9140.00	15700.00	15700.00	12100.00
Antimony	P		67.20 J			91.70 J		67.10 J	
Arsenic	F	7.60 J	10.20 J	4.30 J	2.00 J		1.60 J	1.10 J	11.00 J
Barium	P	53.20	85.10	34.20	55.90	53.00	61.70	64.00	83.80
Beryllium	P								
Cadmium	P		5.10						
Calcium	P	230.00 J	12900.00	31000.00	5710.00	510.00 J	910.00	841.00	11400.00
Chromium	P	21.40	17.80	4.30	6.10	75.30	37.80	43.20	20.30
Cobalt	P	16.60	12.90 J	11.40 J	12.80 J				11.00 J
Copper	P	37.60	46.80	15.70		178.00	93.90	119.00	43.50
Iron	P	34400.00 J	22200.00 J	12400.00 J	14200.00 J	465.00 J	1830.00 J	841.00 J	15300.00 J
Lead	P	14.40 J	54.00 J	354.00 J	30.30 J	320.00 J	151.00 J	150.00 J	70.60 J
Magnesium	P	6290.00	7500.00	11000.00	3830.00		559.00	319.00 J	7960.00
Manganese	P	908.00 J	977.00 J	266.00 J	189.00 J	6.40 J	21.60 J	10.00 J	289.00 J
Mercury	CV								
Nickel	P	29.20		12.10 J	12.40 J				15.50 J
Potassium	P	1070.00	1310.00	489.00 J	1090.00				935.00
Selenium	F								
Silver	P				1.60				
Sodium	P								
Thallium	F	0.37 J	0.53 J	0.60 J	0.60 J			0.78 J	
Vanadium	P	18.10	19.80	6.90	9.30	30.20	31.70	29.80	16.20
Zinc	P	77.40	140.00	55.30	82.30	385.00	175.00	228.00	113.00
Cyanide	C	NA	NA	NA	NA	NA	NA	NA	NA

Analytical Method
 F Furnace
 P ICP/Flame AA
 CV Cold Vapor
 C Colorimetric

NOTE:

A blank space indicates the element was not detected.

Sample results are reported on a dry weight basis.

J Quantitation is approximate due to limitations identified in the quality control review.

NA Not Analyzed

Sample Detection Limits for the elements listed above are reported in Attachment B Table 3.

ATTACHMENT B

Soil Sample Organic and Inorganic Quantitation/Detection Limits NUS/FIT October 11, 1989

Table 1 - Volatile Organic Sample Quantitation Limits

Table 2 - Extractable Organic Sample Quantitation Limits

Table 3 - Inorganic Sample Detection Limits

TABLE 1 PAGE 1 OF 1
VERMONT TISSUE
OCTOBER 11, 1989
CLP VOLATILE ORGANIC ANALYSIS
CASE NO. 12940, SDG NO. AQ775
SOIL/SEDIMENT/SLUDGE SAMPLE QUANTITATION LIMITS
(ug/Kg)

Sample Location	SS-01	SS-02	SS-03	SD-01	SD-02	LS-01	LS-02	LS-02R	LS-03
Sample Number	22538	22539	22537	22531	22532	22533	22534	22535	22536
Traffic Report Number	AQ781	AQ782	AQ783	AQ775	AQ776	AQ777	AQ778	AQ779	AQ780
Remarks	Background	Blank						Duplicate	
VOLATILE ORGANIC COMPOUND									
Chloromethane	12	10	19	12	19	32	14	17	16
Bromomethane	12	10	19	12	19	32	14	17	16
Vinyl Chloride	12	10	19	12	19	32	14	17	16
Chloroethane	12	10	19	12	19	32	14	17	16
Methylene Chloride	12	10	19	12	19	100	14	110	28
Acetone	12	10	19	12	19	32	14	17	16
Carbon Disulfide	6	5	9	6	9	16	7	8	8
1,1-Dichloroethene	6	5	9	6	9	16	7	8	8
1,1-Dichloroethane	6	5	9	6	9	16	7	8	8
1,2-Dichloroethene (Total)	6	5	9	6	9	16	7	8	8
Chloroform	6	5	9	6	9	16	7	8	8
1,2-Dichloroethane	6	5	9	6	9	16	7	8	8
2-Butanone	12	10	19	12	19	32	14	17	16
1,1,1-Trichloroethane	6	5	9	6	9	16	7	8	8
Carbon Tetrachloride	6	5	9	6	9	16	7	8	8
Vinyl Acetate	12	10	19	12	19	32	14	17	16
Bromodichloromethane	6	5	9	6	9	16	7	8	8
1,2-Dichloropropane	6	5	9	6	9	16	7	8	8
cis-1,3-Dichloropropene	6	5	9	6	9	16	7	8	8
Trichloroethene	6	5	9	6	9	16	7	8	8
Dibromochloromethane	6	5	9	6	9	16	7	8	8
1,1,2-Trichloroethane	6	5	9	6	9	16	7	8	8
Benzene	6	5	9	6	9	16	7	8	8
trans-1,3-Dichloropropene	6	5	9	6	9	16	7	8	8
Bromoform	6	5	9	6	9	16	7	8	8
4-Methyl-2-pentanone	12	10	19	12	19	32	14	17	16
2-Hexanone	12	10	19	12	19	32	14	17	16
Tetrachloroethene	6	5	9	6	9	16	7	8	8
1,1,2,2-Tetrachloroethane	6	5	9	6	9	16	7	8	8
Toluene	6	5	9	6	9	810	7	8	8
Chlorobenzene	6	5	9	6	9	16	7	8	8
Ethylbenzene	6	5	9	6	9	16	7	8	8
Styrene	6	5	9	6	9	16	7	8	8
Xylene (Total)	6	5	9	6	9	16	7	8	8
Total VOC Concentration (ug/Kg)									

Sample Quantitation Limits are reported on a dry weight basis.

TABLE 2 PAGE 1 OF 2
VERMONT TISSUE
OCTOBER 11, 1989
CLP EXTRACTABLE ORGANIC ANALYSIS
CASE NO. 12940, SDG NO. AQ775
SOIL/SEDIMENT/SLUDGE SAMPLE QUANTITATION LIMITS
(ug/Kg)

Sample Location	SS-01	SS-03	SD-01	SD-02	LS-01	LS-02	LS-02D	LS-03	
Sample Number	22538	22537	22531	22532	22533	22534	22535	22536	
Traffic Report Number	AQ781	AQ783	AQ775	AQ776	AQ777	AQ778	AQ779	AQ780	
Remarks	Background						Duplicate		
SEMI-VOLATILE COMPOUND									
Phenol	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
bis (2-Chloroethyl) ether	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
2-Chlorophenol	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
1,3-Dichlorobenzene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
1,4-Dichlorobenzene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Benzyl Alcohol	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
1,2-Dichlorobenzene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
2-Methylphenol	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
bis-(2-Chloroisopropyl)ether	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
4-Methylphenol	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
N-Nitroso-di-n-propylamine	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Hexachloroethane	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Nitrobenzene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Isophorone	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
2-Nitrophenol	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
2,4-Dimethylphenol	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Benzoic acid	2000 UJ	3100 UJ	2000 UJ	3100 UJ	160000 UJ	67000 UJ	84000 UJ	2600 UJ	
bis (2-Chloroethoxy) methane	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
2,4-Dichlorophenol	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
1,2,4-Trichlorobenzene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Naphthalene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
4-Chloroaniline	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Hexachlorobutadiene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
4-Chloro-3-methylphenol	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
2-Methylnaphthalene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Hexachlorocyclopentadiene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
2,4,6-Trichlorophenol	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
2,4,5-Trichlorophenol	2000 UJ	3100 UJ	2000 UJ	3100 UJ	160000 UJ	67000 UJ	84000 UJ	2600 UJ	
2-Chloronaphthalene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
2-Nitroaniline	2000 UJ	3100 UJ	2000 UJ	3100 UJ	160000 UJ	67000 UJ	84000 UJ	2600 UJ	
Dimethylphthalate	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Acenaphthylene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
2,6-Dinitrotoluene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	

TABLE 2 PAGE 2 OF 2
VERMONT TISSUE
OCTOBER 11, 1989
CLP EXTRACTABLE ORGANIC ANALYSIS
CASE NO. 12940, SDG NO. AQ775
SOIL/SEDIMENT/SLUDGE SAMPLE QUANTITATION LIMITS
(ug/Kg)

Sample Location	SS-01	SS-03	SD-01	SD-02	LS-01	LS-02	LS-02D	LS-03	
Sample Number	22538	22537	22531	22532	22533	22534	22535	22536	
Traffic Report Number	AQ781	AQ783	AQ775	AQ776	AQ777	AQ778	AQ779	AQ780	
Remarks	Background						Duplicate		
SEMI-VOLATILE COMPOUND									
3-Nitroaniline	2000 UJ	3100 UJ	2000 UJ	3100 UJ	160000 UJ	67000 UJ	84000 UJ	2600 UJ	
Acenaphthene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
2,4-Dinitrophenol	2000 UJ	3100 UJ	2000 UJ	3100 UJ	160000 UJ	67000 UJ	84000 UJ	2600 UJ	
4-Nitrophenol	2000 UJ	3100 UJ	2000 UJ	3100 UJ	160000 UJ	67000 UJ	84000 UJ	2600 UJ	
Dibenzofuran	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
2,4-Dinitrotoluene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Diethylphthalate	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
4-Chlorophenyl-phenylether	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Fluorene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
4-Nitroaniline	2000 UJ	3100 UJ	2000 UJ	3100 UJ	160000 UJ	67000 UJ	84000 UJ	2600 UJ	
4,6-Dinitro-2-methylphenol	2000 UJ	3100 UJ	2000 UJ	3100 UJ	160000 UJ	67000 UJ	84000 UJ	2600 UJ	
N-Nitrosodiphenylamine	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
4-Bromophenyl-phenylether	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Hexachlorobenzene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Pentachlorophenol	2000 UJ	3100 UJ	2000 UJ	3100 UJ	160000 UJ	67000 UJ	84000 UJ	2600 UJ	
Phenanthrene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Anthracene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Di-n-butylphthalate	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Fluoranthene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Pyrene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Butylbenzylphthalate	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
3,3'-Dichlorobenzidine	810 UJ	1200 UJ	800 UJ	1200 UJ	65000 UJ	27000 UJ	34000 UJ	1100 UJ	
Benzo(a)anthracene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Chrysene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
bis(2-Ethylhexyl)phthalate	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Di-n-octyl phthalate	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Benzo(b)fluoranthene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Benzo(k)fluoranthene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Benzo(a)pyrene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Indeno (1,2,3-cd)pyrene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Dibenz(a,h)anthracene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	
Benzo(g,h,i)perylene	400 UJ	620 UJ	400 UJ	620 UJ	32000 UJ	13000 UJ	17000 UJ	530 UJ	

Sample Quantitation Limits are reported on a dry weight basis.
UJ Quantitation Limit is approximated due to limitations during the quality control review.

TABLE 3 Page 1 of 1
VERMONT TISSUE
OCTOBER 10-11, 1989
CLP INORGANIC ANALYSIS
CASE NO. 12940, SDG. NO. MAN051
SOIL/SEDIMENT/SLUDGE SAMPLE DETECTION LIMITS
(mg/Kg)

Sample Location		SS-01	SS-03	SD-01	SD-02	LS-01	LS-02	LS-02D	LS-03
Sample Number		22538	22537	22531	22532	22533	22534	22535	22536
Traffic Report Number		MAN057	MAN058	MAN051	MAN052	MAN053	MAN054	MAN055	MAN056
Remarks		Background						Duplicate	
Percent Solids		84.4%	49.7%	78.9%	61.4%	21.0%	39.7%	40.5%	66.6%
Inorganic Elements	Instrument Detection Limits (ug/L)								
Aluminum	P 30.00	7.11	12.07	7.60	9.77	28.57	15.11	14.81	9.01
Antimony	P 58.00	13.74	23.34	14.70	18.89	55.24	29.22	28.64	17.42
Arsenic	F 1.00	0.24	0.40	0.25	0.33	0.95 UJ	0.50	0.49	0.30
Barium	P 18.00	3.79	6.44	4.06	5.21	15.24	8.06	7.90	4.80
Beryllium	P 2.00	0.7	0.80	0.51	0.65	1.90	1.01	0.99	0.60
Cadmium	P 4.00	0.95	1.61	1.01	1.30	3.81	2.02	1.98	1.20
Calcium	P 471.00	111.61	189.54	119.39	153.42	448.60	237.28	232.59	141.44
Chromium	P 7.00	1.66	2.82	1.77	2.28	6.67	3.53	3.46	2.10
Cobalt	P 21.00	4.98	8.45	5.32	13.6	20.00	10.58	10.37	6.31
Copper	P 7.00	1.66	2.82	1.77	15.10	6.67	3.53	3.46	2.10
Iron	P 11.00	2.61	4.43	2.79	3.58	10.48	5.54	5.43	3.30
Lead	P 61.00	14.45	24.55	15.46	19.87	58.10	30.73	30.12	18.32
Magnesium	P 515.00	122.04	207.24	130.54	167.75	490.48	259.45	254.32	154.65
Manganese	P 5.00	1.18	2.01	1.27	1.63	4.76	2.52	2.47	1.50
Mercury	CV 0.10	0.06	0.14	0.06	0.08	0.24	0.21	0.12	0.08
Nickel	P 39.00	9.0	15.3	9.6	12.4	36.2	19.65	18.8	11.4
Potassium	P 1478.00	350.24	594.77	374.70	481.43	1407.62	744.58	729.88	443.84
Selenium	F 1.00	0.24 UJ	0.46 UJ	0.36 UJ	0.33 UJ	0.95 UJ	0.50 UJ	0.49 UJ	0.30 UJ
Silver	P 5.00	1.18	2.01	1.27	1.63	4.76	2.52	2.47	1.50
Sodium	P 1449.00	343.38	583.10	367.30	471.99	1380.00	729.97	715.56	435.14
Thallium	F 1.00	0.24	0.40	0.25	0.33	0.95	0.50	0.49	0.30
Vanadium	P 10.00	2.37	4.02	2.53	3.26	9.52	5.04	4.94	3.00
Zinc	P 12.00	2.84	4.83	3.04	3.91	11.43	6.05	5.93	3.60
Cyanide	C NA	NA	NA	NA	NA	NA	NA	NA	NA

Analytical Method

F Furnace AA
P ICP/Flame AA
CV Cold Vapor
C Colorimetric

NOTE:

Sample detection limits are reported on a dry weight basis.

UJ The detection limit is approximated due to limitations identified in the quality control review (data validation).

NA Not Analyzed.

ATTACHMENT C

Dioxin/Furan Sample Analytical Results
NUS/FIT October 11, 1989

Table 1 - Dioxin/Furan Sampling Results

TABLE 1 Page 1 of 1
VERMONT TISSUE
OCTOBER 11, 1989
CLP DIOXIN/FURAN ANALYSIS
CASE NO. 12940, SAS NO. 4986A
SOIL ANALYTICAL RESULTS (ng/g)

Sample Location	LS-01	LS-02	LS-02D	LS-03	LS-04
Sample Number	22533	22534	22535	22536	22541
Traffic Report Number	DA012015	DA012016	DA012017	DA012018	DA012019
Remarks			Duplicate		Blank
Sampling Date	10/11/89	10/11/89	10/11/89	10/11/89	10/11/89
Extraction Date	10/19/89	10/19/89	10/19/89	10/19/89	10/19/89
Analysis Date	10/27/89	10/27/89	10/27/89	10/27/89	10/27/89
DIOXIN/FURAN					
2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD)					
1,2,3,7,8-pentachlorodibenzo-p-dioxin (1,2,3,7,8-PeCDD)					
x,x,2,3,7,8-hexachlorodibenzo-p-dioxin (x,x,2,3,7,8-HxCDD)					
1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	1.51	1.25	1.52		
1,2,3,4,6,7,9-heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,9-HpCDD)	1.60	1.18	1.47	0.73	
octachlorodibenzo-p-dioxin (OCDD)	20.37	11.68	15.12	8.06	
2,3,7,8-tetrachlorodibenzofuran (2,3,7,8-TCDF)				0.09	
x,2,3,7,8-pentachlorodibenzofuran (x,2,3,7,8-PeCDF)					
x,x,2,3,7,8-hexachlorodibenzofuran (x,x,2,3,7,8-HxCDF)					
x,x,x,2,3,7,8-heptachlorodibenzofuran (x,x,x,2,3,7,8-HpCDF)					
octachlorodibenzofuran (OCDF)					
2,3,7,8-TCDD Equivalence	0.035	0.02	0.03	0.18	0.00

A blank space indicates the compound was not detected.
Sample results are reported on a dry weight basis.

R Value is rejected.

Sample detection limits for the isomers listed above are reported in Attachment D Table 1.

ATTACHMENT D

Dioxin/Furan Sample Detection Limits
NUS/FIT October 11, 1989

Table 1 - Dioxin/Furan Detection Limits

TABLE 1 Page 1 of 1
 VERMONT TISSUE
 OCTOBER 11, 1989
 CLP DIOXIN/FURAN ANALYSIS
 CASE NO. 12940, SAS NO. 4986A
 SOIL SAMPLE DETECTION LIMITS (ng/g)

Sample Location	LS-01	LS-02	LS-02D	LS-03	LS-04
Sample Number	22533	22534	22535	22536	22541
Traffic Report Number	DA012015	DA012016	DA012017	DA012018	DA012019
Remarks			Duplicate		Blank
Sampling Date	10/11/89	10/11/89	10/11/89	10/11/89	10/11/89
Extraction Date	10/19/89	10/19/89	10/19/89	10/19/89	10/19/89
Analysis Date	10/27/89	10/27/89	10/27/89	10/27/89	10/27/89
DIOXIN\FURAN					
2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD)	0.44	0.16	0.31	0.08	0.04
1,2,3,7,8-pentachlorodibenzo-p-dioxin (1,2,3,7,8-PeCDD)	0.31	0.30	0.26	0.13	0.08
x,x,2,3,7,8-hexachlorodibenzo-p-dioxin (x,x,2,3,7,8-HxCDD)	R	0.29	0.17	0.12	0.03
1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	-	-	-	0.35	0.08
1,2,3,4,6,7,9-heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,9-HpCDD)	-	-	-	-	-
octachlorodibenzo-p-dioxin (OCDD)	-	-	-	-	0.14
2,3,7,8-tetrachlorodibenzofuran (2,3,7,8-TCDF)	0.16	0.14	0.27	-	0.04
x,2,3,7,8-pentachlorodibenzofuran (x,2,3,7,8-PeCDF)	0.34	0.25	0.19	0.09	0.02
x,x,2,3,7,8-hexachlorodibenzofuran (x,x,2,3,7,8-HxCDF)	0.31	0.17	0.28	0.10	0.03
x,x,x,2,3,7,8-heptachlorodibenzofuran (x,x,x,2,3,7,8-HpCDF)	0.25	0.21	0.35	R	0.05
octachlorodibenzofuran (OCDF)	1.92	0.98	1.12	-	0.13

Sample Detection Limits are reported on a dry weight basis.

- The detection limit is not known.

ATTACHMENT E

VT ANR Sampling Results October 11, 1989



State of Vermont

AGENCY OF ENVIRONMENTAL CONSERVATION

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Water Resources & Environmental Engineering
Natural Resources Conservation Council
State Geologist

103 South Main Street
Waterbury, Vermont 05671
Department of Water Resources
and
Environmental Engineering

Dept. of Water Resources Lab Management System Remarks Code

REMARKS CODE

TITLE CODE

A	SAMPLE LOST DUE TO LABORATORY ACCIDENT
D	DETERMINED PRESENT, BUT NOT QUANTIFIED
E	ESTIMATED VALUE
F	FURNACE TECHNIQUE USED ON SOIL SAMPLE
H	SAMPLE OVER HOLD TIME
I	INTERFERENCE DUE TO CHEMICALS OR COLOR
J	REPORTED VALUE MAY BE IN ERROR
M	TEST LOGGED IN BY MISTAKE
P	SAMPLE NOT PROCESSED
Q	SAMPLE QUANTITY NOT SUFFICIENT
R	TEST COMPLETED BUT RESULT NOT REPORTED
S	ONLY POSITIVE RESULTS REPORTED
T	POSITIVE RESULTS REPORTED-UNKNOWN PEAKS ALSO
U	ONLY UNIDENTIFIED PEAKS FOUND
V	UNITS ARE VOLUME/VOLUME
X	RESULTS NOT CONFIRMED
Z	RESULTS NOT DETECTED FOR ALL TESTS
3	MULTIPLY RESULTS BY 1,000
6	MULTIPLY RESULTS BY 1,000,000

VT. DEPT. ENVIRONMENTAL CONSERVATION LABORATORY
DATA SHEET FOR VOLATILE ORGANICS - WATER

SAMPLE NUMBER: 47477
DATE RUN: 10-18-89
SITE: T.B.
DATE COLLECTED: 10-11-89

ANALYST: SRL
DILUTION FACTOR: 1

REMARKS CODE

801W: M
802W: M
824W: Z

	Approximate Detection Limit	Detected at
	ug/l	ug/l
*VW07 Vinylchloride	10	ND
*VW08 Chloromethane	10	ND
*VW09 Bromomethane	10	ND
*VW10 Chloroethane	10	ND
*VW11 Trichlorofluoromethane	10	ND
*VW12 Acetone	50	ND
VW13 1,1-Dichloroethane	2	ND
*VW14 Carbondisulfide	2	ND
VW15 Methylene Chloride	2	ND
VW16 Methyl-t-Butylether (MTBE)	10	ND
VW17 1,2-Dichloroethane	2	ND
VW18 1,1-Dichloroethane	2	ND
*VW19 Vinyl Acetate	50	ND
*VW20 2-Butanone	50	ND
VW21 Chloroform	2	ND
VW22 1,1,1-Trichloroethane	2	ND
VW23 Carbon Tetrachloride	2	ND
VW24 Benzene	2	ND
VW25 1,2-Dichloroethane	2	ND
VW26 Trichloroethene	2	ND
VW27 1,2-Dichloropropane	2	ND
VW28 Bromodichloromethane	2	ND
*VW29 4-Methyl-2-Pentanone	20	ND
*VW30 Cis-1,3-Dichloropropene	2	ND
VW31 Toluene	2	ND
*VW32 Trans-1,3-Dichloropropene	2	ND
VW33 1,1,2-Trichloroethane	2	ND
*VW34 2-Hexanone	20	ND
VW35 Tetrachloroethene	2	ND
VW36 Dibromochloromethane	2	ND
VW37 Chlorobenzene	2	ND
VW38 Ethylbenzene	2	ND
VW39 Xylenes	2	ND
*VW40 Styrene	2	ND
VW41 Bromoform	2	ND
VW42 1,1,2,2,-Tetrachloroethane	2	ND
TVH Total Volatile Hydrocarbons	100	ND

* Not detected when methods 801W and 802W are run.

REMARKS.....

SURROGATE RECOVERIES.....
1,2-Dichloroethane - D4: 97% D8-Toluene: 110% 4-BromoFluorobenzene: 107%

GD\W01

VT. DEPT. ENVIRONMENTAL CONSERVATION LABORATORY
DATA SHEET FOR VOLATILE ORGANICS - WATER

SAMPLE NUMBER: 47478
DATE RUN: 10-18-89
SITE: Big Boys Toys
DATE COLLECTED: 10-11-89

ANALYST: S.H.
DILUTION FACTOR: 1

REMARKS CODE

801W: M
802W: M
824W: Z

	Approximate Detection Limit	Detected at
	ug/l	ug/l
*VW07 Vinylchloride	10	ND
*VW08 Chloromethane	10	ND
*VW09 Bromomethane	10	ND
*VW10 Chloroethane	10	ND
*VW11 Trichlorofluoromethane	10	ND
*VW12 Acetone	50	ND
VW13 1,1-Dichloroethene	2	ND
*VW14 Carbondisulfide	2	ND
VW15 Methylene Chloride	2	ND
VW16 Methyl-t-Butylether (MTBE)	10	ND
VW17 1,2-Dichloroethene	2	ND
VW18 1,1-Dichloroethane	2	ND
*VW19 Vinyl Acetate	50	ND
*VW20 2-Butanone	50	ND
VW21 Chloroform	2	ND
VW22 1,1,1-Trichloroethane	2	ND
VW23 Carbon Tetrachloride	2	ND
VW24 Benzene	2	ND
VW25 1,2-Dichloroethane	2	ND
VW26 Trichloroethene	2	ND
VW27 1,2-Dichloropropane	2	ND
VW28 Bromodichloromethane	2	ND
*VW29 4-Methyl-2-Pentanone	20	ND
*VW30 Cis-1,3-Dichloropropene	2	ND
VW31 Toluene	2	ND
*VW32 Trans-1,3-Dichloropropene	2	ND
VW33 1,1,2-Trichloroethane	2	ND
*VW34 2-Hexanone	20	ND
VW35 Tetrachloroethene	2	ND
VW36 Dibromochloromethane	2	ND
VW37 Chlorobenzene	2	ND
VW38 Ethylbenzene	2	ND
VW39 Xylenes	2	ND
*VW40 Styrene	2	ND
VW41 Bromoform	2	ND
VW42 1,1,2,2,-Tetrachloroethane	2	ND
TVH Total Volatile Hydrocarbons	100	ND

* Not detected when methods 801W and 802W are run.

REMARKS.....

SURROGATE RECOVERIES.....
1,2-Dichloroethane - D4: 103% D8-Toluene: 113% 4-BromoFluorobenzene: 100%

VT. DEPT. ENVIRONMENTAL CONSERVATION LABORATORY
DATA SHEET FOR VOLATILE ORGANICS - WATER

SAMPLE NUMBER: 47479
DATE RUN: 10-18-89
SITE: Senecal
DATE COLLECTED:

ANALYST: SRL
DILUTION FACTOR: 1

REMARKS CODE

801W: M
802W: M
824W: Z

	Approximate Detection Limit	Detected at
	<u>ug/l</u>	<u>ug/l</u>
*VW07 Vinylchloride	10	ND
*VW08 Chloromethane	10	ND
*VW09 Bromomethane	10	ND
*VW10 Chloroethane	10	ND
*VW11 Trichlorofluoromethane	10	ND
*VW12 Acetone	50	ND
VW13 1,1-Dichloroethene	2	ND
*VW14 Carbondisulfide	2	ND
VW15 Methylene Chloride	2	ND
VW16 Methyl-t-Butylether (MTBE)	10	ND
VW17 1,2-Dichloroethane	2	ND
VW18 1,1-Dichloroethane	2	ND
*VW19 Vinyl Acetate	50	ND
*VW20 2-Butanone	50	ND
VW21 Chloroform	2	ND
VW22 1,1,1-Trichloroethane	2	ND
VW23 Carbon Tetrachloride	2	ND
VW24 Benzene	2	ND
VW25 1,2-Dichloroethane	2	ND
VW26 Trichloroethene	2	ND
VW27 1,2-Dichloropropane	2	ND
VW28 Bromodichloromethane	2	ND
*VW29 4-Methyl-2-Pentanone	20	ND
*VW30 Cis-1,3-Dichloropropene	2	ND
VW31 Toluene	2	ND
*VW32 Trans-1,3-Dichloropropene	2	ND
VW33 1,1,2-Trichloroethane	2	ND
*VW34 2-Hexanone	20	ND
VW35 Tetrachloroethene	2	ND
VW36 Dibromochloromethane	2	ND
VW37 Chlorobenzene	2	ND
VW38 Ethylbenzene	2	ND
VW39 Xylenes	2	ND
*VW40 Styrene	2	ND
VW41 Bromoform	2	ND
VW42 1,1,2,2,-Tetrachloroethane	2	ND
TVH Total Volatile Hydrocarbons	100	ND

* Not detected when methods 801W and 802W are run.

REMARKS.....

SURROGATE RECOVERIES.....

1,2-Dichloroethane - D4: 97% D8-Toluene: 110% 4-BromoFluorobenzene: 103%

FINAL LAB REPORT

DATE 11/28/89

LAB ID 47479 REPORT TO D/SHEPARD DUE DATE 11/12/89

SOURCE LOCATION SENECA COLLECTION DATE 10/11/89

PROGRAM 021-MULTI-SITE COOP AGREEMENT AMBIENT WATER SAMPLE Y

SUBMITTED BY D/SHEPARD PHONE 244-8702 SUBMIT DATE 10/12/89 LEGAL YES

SAMPLE NOTES:

TEST CODE	TEST NAME	RESULT	UNIT OF MEASURE	REMARKS CODE	PROCESS DATE
801W	METHOD 8010 TESTS, WATER	0	NONE	M	10/18/89
802W	METHOD 8020 TESTS, WATER	0	NONE	M	10/18/89
824W	METHOD 8240 TESTS, WATER	0	NONE	Z	10/18/89
ASZ	ARSENIC TOTAL - FURNACE	< 5	UG/L		10/25/89
CD	CADMIUM TOTAL	3	UG/L		10/27/89
CR	CHROMIUM TOTAL	< 2	UG/L		10/25/89
PB	LEAD TOTAL	< 5	UG/L		10/27/89
HG	MERCURY TOTAL	< 0.2	UG/L		11/03/89
SE2	SELENIUM TOTAL - FURNACE	< 5	UG/L		11/02/89
AG2	SILVER TOTAL - FURNACE	< 1.0	UG/L		11/09/89
SB2	ANTIMONY TOTAL - FURNACE	< 5.0	UG/L		11/15/89
CU	COPPER TOTAL	107	UG/L		10/25/89
NI	NICKEL TOTAL	< 5	UG/L		10/27/89
TL2	THALLIUM TOTAL - FURNACE	< 2.0	UG/L		11/13/89
ZN	ZINC TOTAL	26	UG/L		10/27/89

DEPT. OF ENVIRONMENTAL CONSERVATION LAB MANAGEMENT SYSTEM PAGE 2

FINAL LAB REPORT

DATE 11/28/89

LAB ID	47479	REPORT TO	D/SHEPARD	DUE DATE	11/12/89
FBA2	BARIUM TOTAL - FURNACE	210		UG/L	11/20/89
FBE2	BERYLLIUM TOTAL - FURNACE	< 1.0		UG/L	11/08/89

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DEPT. OF ENVIRONMENTAL CONSERVATION LAB MANAGEMENT SYSTEM PAGE 1

FINAL LAB REPORT

DATE 11/28/89

LAB ID 47478 REPORT TO D/SHEPARD DUE DATE 11/12/89

SOURCE LOCATION BBT COLLECTION DATE 10/11/89

PROGRAM 021-MULTI-SITE COOP AGREEMENT AMBIENT WATER SAMPLE Y

SUBMITTED BY D/SHEPARD PHONE 244-8702 SUBMIT DATE 10/12/89 LEGAL YES

SAMPLE NOTES:

TEST CODE	TEST NAME	RESULT	UNIT OF MEASURE	REMARKS CODE	PROCESS DATE
101W	METHOD 8010 TESTS, WATER	0	NONE	M	10/18/89
102W	METHOD 8020 TESTS, WATER	0	NONE	M	10/18/89
124W	METHOD 8240 TESTS, WATER	0	NONE	Z	10/18/89
AS2	ARSENIC TOTAL - FURNACE	< 5	UG/L		10/25/89
CD	CADMIUM TOTAL	2	UG/L		10/27/89
CR	CHROMIUM TOTAL	< 2	UG/L		10/25/89
PB	LEAD TOTAL	< 5	UG/L		10/27/89
HG	MERCURY TOTAL	< 0.2	UG/L		11/03/89
SE2	SELENIUM TOTAL - FURNACE	< 5	UG/L		11/02/89
AG2	SILVER TOTAL - FURNACE	< 1.0	UG/L		11/09/89
SB2	ANTIMONY TOTAL - FURNACE	< 5.0	UG/L		11/15/89
CU	COPPER TOTAL	372	UG/L		10/25/89
NI	NICKEL TOTAL	< 5	UG/L		10/27/89
TL2	THALLIUM TOTAL - FURNACE	< 2.0	UG/L		11/13/89
ZN	ZINC TOTAL	320	UG/L		10/27/89

DEPT. OF ENVIRONMENTAL CONSERVATION LAB MANAGEMENT SYSTEM PAGE

FINAL LAB REPORT

DATE 11/28/89

LAB ID 47478	REPORT TO D/SHEPARD	DUE DATE 11/12/89	
1BA2 BARIUM TOTAL - FURNACE	180	UG/L	11/20/89
1BE2 BERYLLIUM TOTAL - FURNACE	< 1.0	UG/L	11/08/89

DEPT. OF WATER RESOURCES LAB MANAGEMENT SYSTEM

PAGE 1

FINAL LAB REPORT

DATE 10/23/89

LAB ID 47477

REPORT TO D/SHEPARD

DUE DATE 11/12/89

SOURCE LOCATION TRIP BLANK

COLLECTION DATE 10/11/89

PROGRAM 021-MULTI-SITE CCOP AGREEMENT

AMBIENT WATER SAMPLE Y

SUBMITTED BY D/SHEPARD

PHONE 244-8702 SUBMIT DATE 10/12/89 LEGAL YES

SAMPLE NOTES:

TEST CODE	TEST NAME	RESULT	UNIT OF MEASURE	REMARKS CODE	PROCESS DATE
801W	METHOD 8010 TESTS, WATER	0	NONE	M	10/18/89
802W	METHOD 8020 TESTS, WATER	0	NONE	M	10/18/89
824W	METHOD 8240 TESTS, WATER	0	NONE	Z	10/18/89

ATTACHMENT F

VT ANR Sampling Results June 12, 1985

DEPT. OF WATER RESOURCES LAB MANAGEMENT SYSTEM

PAGE

FINAL LAB REPORT

DATE 07/29/85

LAB ID 11227

REPORT TO C/STONE

DUE DATE 07/13/85

SOURCE LOCATION VT TISS 30' 2' DEEP

COLLECTION DATE 06/12/85

PROGRAM 022-HAZARDOUS WASTE

AMBIENT WATER SAMPLE Y

SUBMITTED BY C/STONE

PHONE 928-3395 SUBMIT DATE 06/13/85 LEGAL NO

SAMPLE NOTES:

TEST CODE	TEST NAME	RESULT	UNIT OF MEASURE	REMARKS CODE	PROCESS DATE
BAR	BARIUM TOTAL	0	UG/L	M	07/13/85
BK	POTASSIUM TOTAL	0.00	MG/L	M	07/15/85
CR	CHROMIUM TOTAL	0	UG/L	M	07/08/85
CD	CADMIUM TOTAL	0	UG/L	M	07/08/85
PB	LEAD TOTAL	0	UG/L	M	07/15/85
ZN	ZINC TOTAL	0	UG/L	M	07/03/85
NI	NICKEL TOTAL	0	UG/L	M	07/15/85
SCD	CADMIUM SOIL	1.8	MG/KG		07/07/85
SCR	CHROMIUM SOIL	14.4	MG/KG		07/07/85
ZZN	ZINC SOIL	347.0	MG/KG		07/07/85
BK	POTASSIUM SOIL	44.7	MG/KG		07/10/85
ONI	NICKEL SOIL	17.1	MG/KG		07/10/85
PB	LEAD SOIL	78.8	MG/KG		07/10/85
BRA	BARIUM SOIL	16	MG/KG		07/18/85
SSOL	SOLIDS-PERCENT	20.830	PERCENT		07/24/85

DEPT. OF WATER RESOURCES LAB MANAGEMENT SYSTEM

PAGE

FINAL LAB REPORT

DATE 07/29/85

LAB ID 11226

REPORT TO C/STONE

DUE DATE 07/13/85

SOURCE LOCATION VT TISS 30' L'DEEP COLLECTION DATE 06/12/85

PROGRAM 022-HAZARDOUS WASTE

AMBIENT WATER SAMPLE Y

SUBMITTED BY C/STONE

PHONE 829-3395 SUBMIT DATE 06/13/85 LEGAL NO

SAMPLE NOTES:

TEST CODE	TEST NAME	RESULT	UNIT OF MEASURE	REMARKS CODE	PROCESS DATE
TDA	BARIUM TOTAL	0	UG/L	M	07/18/85
TK	POTASSIUM TOTAL	0.00	MG/L	M	07/15/85
TCR	CHROMIUM TOTAL	0	UG/L	M	07/08/85
TCO	CADMIUM TOTAL	0	UG/L	M	07/08/85
TPB	LEAD TOTAL	0	UG/L	M	07/15/85
TZN	ZINC TOTAL	0	UG/L	M	07/03/85
TNI	NICKEL TOTAL	0	UG/L	M	07/15/85
SCD	CADMIUM SOIL	< 0.2	MG/KG		07/09/85
SCR	CHROMIUM SOIL	7.1	MG/KG		07/09/85
SZN	ZINC SOIL	151.0	MG/KG		07/09/85
SK	POTASSIUM SOIL	22.0	MG/KG		07/10/85
SNI	NICKEL SOIL	44.7	MG/KG		07/10/85
SPB	LEAD SOIL	37.3	MG/KG		07/10/85
SBA	BARIUM SOIL	7	MG/KG		07/18/85
PSOL	SOLIDS-PERCENT	12.160	PERCENT		07/24/85

DEPT. OF WATER RESOURCES LAB MANAGEMENT SYSTEM

PAGE 1

FINAL LAB REPORT

DATE 07/17/85

LAB ID 11958

REPORT TO C/STONE

DUE DATE 07/13/85

SOURCE LOCATION VT TISSUE OUTFALL

COLLECTION DATE 06/12/85

PROGRAM 022-HAZARDOUS WASTE

AMBIENT WATER SAMPLE Y

SUBMITTED BY C/STONE

PHONE 828-3395 SUBMIT DATE 06/13/85 LEGAL NO

SAMPLE NOTES:

TEST CODE	TEST NAME	RESULT	UNIT OF MEASURE	REMARKS CODE	PROCESS DATE
DBA	BARIUM DISSOLVED	229	UG/L		07/18/85
DPB	LEAD DISSOLVED	< 4	UG/L		07/16/85
DCR	CHROMIUM DISSOLVED	< 2	UG/L		07/08/85
DCD	CADMIUM DISSOLVED	1	UG/L		07/08/85
K	POTASSIUM DISSOLVED	3.15	MG/L		06/19/85
ZN	ZINC DISSOLVED	165	UG/L		07/03/85
NI	NICKEL DISSOLVED	8	UG/L		07/16/85
CR	CHROMIUM HEXAVALENT	0	UG/L	M	07/15/85

DEPT. OF WATER RESOURCES LAB MANAGEMENT SYSTEM

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FINAL LAB REPORT

DATE 07/19/85

LAB ID 11940

REPORT TO C/STONE

DUE DATE 07/13/85

SOURCE LOCATION VT TISSUE 30' 1' DEEP COLLECTION DATE 06/12/85

PROGRAM 022-HAZARDOUS WASTE

AMBIENT WATER SAMPLE Y

SUBMITTED BY C/STONE

PHONE 828-5395 SUBMIT DATE 06/13/85 LEGAL NO

SAMPLE NOTES:

TEST CODE	TEST NAME	RESULT	UNIT OF MEASURE	REMARKS CODE	PROCESS DATE
DBA	BARIUM DISSOLVED	1525	UG/L		07/18/85
DPB	LEAD DISSOLVED	12	UG/L		07/16/85
DCR	CHROMIUM DISSOLVED	7	UG/L		07/08/85
DCD	CADMIUM DISSOLVED	1	UG/L		07/08/85
DK	POTASSIUM DISSOLVED	4.99	MG/L		06/19/85
DZN	ZINC DISSOLVED	703	UG/L		07/03/85
DNI	NICKEL DISSOLVED	48	UG/L		07/16/85
ICR	CHROMIUM HEXAVALENT	0	UG/L	M	07/15/85

DEPT. OF WATER RESOURCES LAB MANAGEMENT SYSTEM

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FINAL LAB REPORT

DATE 06/27/85

LAB ID 11925 REPORT TO C/STONE DUE DATE 07/13/85

SOURCE LOCATION VT TISSUE OUTFALL COLLECTION DATE 06/12/85

PROGRAM 022-HAZARDOUS WASTE AMBIENT WATER SAMPLE Y

SUBMITTED BY C/STONE PHONE 828-3395 SUBMIT DATE 06/13/85 LEGAL NO

SAMPLE NOTES:

TEST CODE	TEST NAME	RESULT	UNIT OF MEASURE	REMARKS CODE	PROCESS DATE
M601	METHOD 601 TESTS	0	NONE	U	06/20/85
M602	METHOD 602 TESTS	0	NONE	U	06/20/85

FINAL LAB REPORT

DATE 06/27/85

11924

REPORT TO C/STONE

DUE DATE 07/13/85

LOCATION VT TISSUE 30' TO SHOR COLLECTION DATE 06/12/85

M 022-HAZARDOUS WASTE

AMBIENT WATER SAMPLE Y

TED BY C/STONE

PHONE 828-3395 SUBMIT DATE 06/13/85 LEGAL NO

NOTES:

TEST NAME	RESULT	UNIT OF MEASURE	REMARKS CODE	PROCESS DATE
METHOD 601 TESTS	0	NONE	U	06/20/85
METHOD 602 TESTS	0	NONE	U	06/20/85

DEPT. OF WATER RESOURCES LAB MANAGEMENT SYSTEM

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FINAL LAB REPORT

DATE 07/19/85

LAB ID 11739

REPORT TO C/STONE

DUE DATE 07/13/85

SOURCE LOCATION VT TISSUE 309 2'DEEP COLLECTION DATE 06/12/85

PROGRAM 022-HAZARDOUS WASTE

AMBIENT WATER SAMPLE Y

SUBMITTED BY C/STONE

PHONE 823-3795 SUBMIT DATE 06/13/85 LEGAL NO

SAMPLE NOTES:

TEST CODE	TEST NAME	RESULT	UNIT OF MEASURE	REMARKS CODE	PROCESS DATE
DBA	BARIUM DISSOLVED	1275	UG/L		07/18/85
DPB	LEAD DISSOLVED	16	UG/L		07/16/85
DCR	CHROMIUM DISSOLVED	9	UG/L		07/08/85
DCD	CADMIUM DISSOLVED	1	UG/L		07/08/85
DK	POTASSIUM DISSOLVED	3.39	MG/L		06/19/85
DZN	ZINC DISSOLVED	956	UG/L		07/03/85
DNI	NICKEL DISSOLVED	54	UG/L		07/16/85
HCR	CHROMIUM HEXAVALENT	0	UG/L	M	07/15/85

ATTACHMENT G

VT ANR Sampling Results September 14, 1984

Metal Analysis

DEPT. OF WATER RESOURCES LAB MANAGEMENT SYSTEM

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FINAL LAB REPORT

DATE 10/23/84

LAB ID 07975

REPORT ID B/FITZGERALD

DUE DATE 10/14/84

SOURCE LOCATION VERMONT TISSUE

COLLECTION DATE 09/14/84

PROGRAM 022-HAZARDOUS WASTE

AMBIENT WATER SAMPLE N

SUBMITTED BY B/FITZGERALD

PHONE 828-3395 SUBMIT DATE 09/14/84 LEGAL NO

SAMPLE NOTES:

EST CODE	TEST NAME	RESULT	UNIT OF MEASURE	REMARKS CODE	PROCESS DATE
AS2	ARSENIC TOTAL - FURNACE	< 4	UG/L		10/17/84
CD	CADMIUM TOTAL	2	UG/L		09/25/84
CR	CHROMIUM TOTAL	48	UG/L		09/25/84
C	IRON TOTAL	2820	UG/L		09/24/84
B	LEAD TOTAL	178	UG/L		09/25/84
I	NICKEL TOTAL	10	UG/L		09/25/84
S	SILVER TOTAL	0	UG/L		09/25/84
S	SELENIUM TOTAL	< 1	UG/L	P	10/22/84
I	ZINC TOTAL	433	UG/L		10/01/84
					09/25/84

602 Test Only

DEPT. OF WATER RESOURCES LAB MANAGEMENT SYSTEM

PAGE 1

FINAL LAB REPORT

DATE 10/15/84

LAB ID 07980

REPORT TO B/FITZGERALD

DUE DATE 10/14/84

SOURCE LOCATION VERMONT TISSUE V003 COLLECTION DATE 09/14/84

PROGRAM 022-HAZARDOUS WASTE

AMBIENT WATER SAMPLE N

SUBMITTED BY B/FITZGERALD

PHONE 828-3395 SUBMIT DATE 09/14/84 LEGAL NC

SAMPLE NOTES:

TEST CODE	TEST NAME	RESULT	UNIT OF MEASURE	REMARKS CODE	PROCESS DATE
1601	METHOD 601 TESTS	0	NONE	M	10/15/84
1602	METHOD 602 TESTS	0	NONE	T	09/20/84
201	BENZENE	1	PPB		09/20/84
202	TOLUENE	4	PPB		09/20/84

101 Test only

DEPT. OF WATER RESOURCES LAB MANAGEMENT SYSTEM

PAGE 1

FINAL LAB REPORT

DATE 10/15/84

LAB IC 07981

REPORT TO B/FITZGERALD

DUE DATE 10/14/84

SOURCE LOCATION VERMONT TISSUE V004

COLLECTION DATE 09/14/84

PROGRAM 022-HAZARDOUS WASTE

AMBIENT WATER SAMPLE N

SUBMITTED BY B/FITZGERALD

PHONE 828-3395 SUBMIT DATE 09/14/84 LEGAL NO

SAMPLE NOTES:

TEST CODE	TEST NAME	RESULT	UNIT OF MEASURE	REMARKS CODE	PROCESS DATE
601	METHOD 601 TESTS	0	NONE	U	09/20/84
602	METHOD 602 TESTS	0	NONE	M	10/15/84

Trip Blank

DEPT. OF WATER RESOURCES LAB MANAGEMENT SYSTEM

PAGE 1

FINAL LAB REPORT

DATE 10/15/84

LAB ID 07977

REPORT TO B/FITZGERALD

DUE DATE 10/14/84

SOURCE LOCATION VERMONT TISSUE T802 COLLECTION DATE 09/14/84

PROGRAM 022-HAZARDOUS WASTE

AMBIENT WATER SAMPLE N

SUBMITTED BY B/FITZGERALD

PHONE 828-3395 SUBMIT DATE 09/14/84 LEGAL NO

SAMPLE NOTES:

TEST CODE	TEST NAME	RESULT	UNIT OF MEASURE	REMARKS CODE	PROCESS DATE
1601	METHOD 601 TESTS	0	NONE	Z	09/20/84
1602	METHOD 602 TESTS	0	NONE	M	10/15/84

Site Name: VERMONT TISSUE
CERCLIS No.: VTD059373316
TDD No.: FH 8903-17
Reference No.: \$375VT581\$

NPL ELIGIBILITY CHECKLIST

	YES	NO	COMMENTS
Are the wastes onsite considered hazardous as defined in CERCLA?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
*Sites covered by other authorities:			
Are the hazardous materials at the site solely petroleum products (gasoline, oil, natural gas)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the contamination at the site caused solely by pesticides that were applied using an accepted practice?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If the release is into public or private drinking water systems, is it due to deterioration of the system through ordinary use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the release from products which are part of the structure, and results in exposure within residential, business, or community structures?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the release result in exposure to people solely within a work place?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Does the facility have an Underground Injection Control permit under the Safe Drinking Water Act?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the release the result of the normal application of fertilizer?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Does the release involve naturally occurring substances in their unaltered form?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Does the contamination at the site consist solely of radioactive materials generated by Department of Energy/Atomic Energy Commission activities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the contamination at the site caused solely by coal mining operations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Does the facility have a permit from the EPA or the US Army Corps of Engineers (under the Marine Protection, Research, and Sanctuaries Act) to dispose of dredged materials in ocean waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Site Name: VERMONT TISSUE
 CERCLIS No.: VTD0593733/6
 TDD No.: FI-8903-17
 Reference No.: \$375 VT581\$

	YES	NO	COMMENTS
*Other issues to site definition:			
Is the site defined solely as a contaminated well field?		<input checked="" type="checkbox"/>	
Is the site currently owned or operated by a federal agency, or has it been in the past?		<input checked="" type="checkbox"/>	
Is the site a municipal landfill?		<input checked="" type="checkbox"/>	
-- Check if there is documentation of disposal of industrial waste.			
Does the waste consist of a "special waste" such as fly ash?		<input checked="" type="checkbox"/>	
-- Check if there is documentation of a hazardous component to the waste.			
Does the facility have an NPDES permit?	<input checked="" type="checkbox"/>		
-- Check if the facility has a history of permit violations.			
Is the facility subject to ambient air quality standards under the Clean Air Act?		<input checked="" type="checkbox"/>	
Does the facility have a permit under the Clean Air Act?		<input checked="" type="checkbox"/>	
*RCRA Status			
Has the facility notified as a RCRA generator?		<input checked="" type="checkbox"/>	
-- The facility is a large quantity generator.			
-- The facility is a small quantity generator.			
Has the facility ever had RCRA interim status or a RCRA permit?		<input checked="" type="checkbox"/>	
If yes, check any that apply:			
-- The facility is a "non-notifier" or "protective filer" (identified as such by EPA or the state).			

Site Name: VERMONT TISSUE
CERCLIS No.: VTD 059373316
TDD No.: F1-8903-17
Reference No.: \$375 VT58I\$

*RCRA Status (continued)

- The owner of the facility is bankrupt, or the owner has filed for protection under bankruptcy laws (if known). _____
- A RCRA compliance order or notice of violation has been issued for the facility at some time. _____

The order or notice concerned:

- conditions that posed a hazard (i.e., a release of contamination to the environment) OR _____
- administrative violations (i.e., record-keeping or financial requirements). _____
- Some RCRA enforcement action is currently pending at the facility. _____
- A RCRA permit has been denied or interim status has been revoked for the facility. _____

The permit or interim status was revoked:

- because of conditions at the facility that posed a hazard OR _____
- because the facility failed to meet an administrative requirement (i.e., failed to file an acceptable Part 8 permit application). _____
- A closure plan has been requested or submitted for the facility under RCRA. _____
- A closure plan has been requested or submitted for the facility under RCRA. _____
- A closure plan has been approved for the facility under RCRA. _____
- The facility is closed and currently monitoring under RCRA regulations. _____

CERCLIS DATABASE FORM

DATE: July 23, 1990

SITE NAME: Vermont Tissue

CERCLIS No. VTD059373316

TDD No. F1-8903-17

PROJECT MANAGER: Paul Young

DIRECTIONS TO SITE: Route 67A West from Bennington, Vermont. Vermont Tissue building is on the left; the office, warehouses and lagoons are directly across from the building to the north of Route 67A.

ELEMENT	CERCLIS CODE (No. of positions)	DESCRIPTION	ENTRY
I. FOR ALL PROJECTS			
State	C2(2)	Postal code	<u>VT</u>
Site ID (If available)	C101(12)	Dun & Bradstreet or GSA	<u></u>
Site Name	C104(40)		<u>Vermont Tissue</u>
Street Address	C110(25)		<u>Route 67A</u>
City	C111(25)		<u>Bennington</u>
County	*TBD		<u>Bennington</u>
Ownership	C136(2)	FF = Federally owned ST = State owned CO = County owned DI = District owned IL = Indian lands MI = Mixed ownership UN = Unknown *TBD1 = Municipally owned *TBD2 = Privately owned OH = Other	<u>TBD2</u>
Years of operation	*TBD	<u>1900</u> to <u>present</u>	<u>90 + years</u>
FMS Number (if assigned)	C315(4)		
Coordinates	*TBD	Latitude	<u>42° 54' 54"</u>
		Longitude	<u>73° 14' 02"</u>

[illegible]

For PAs:

H	=	High	=	SSI Required
M	=	Med.	=	SSI Recommended
N	=	NFRAP	=	No Further Remedial Action Planned

For SSIs:

R	=	Recommended for an LSI
D	=	Deferred to another authority
N	=	NFRAP = No Further Remedial Action Planned

For LSIs:

G	=	Recommended for an HRS Scoring
N	=	NFRAP = No Further Remedial Action Planned

R

Abbreviated Comments

*TBD

*TBD1 = Petroleum contamination only
 *TBD2 = Active RCRA facility
 *TBD3 = Properly applied pesticide
 *TBD4 = Nuclear/radioactive waste
 *TBD5 = All other reasons

F = EPA, Fund financed
S = State, Fund financed
SN = State, no Fund financing
FF = Federal facility
*TBD = Responsible Party

F

ELEMENT	CERCLIS CODE (No. of positions)	DESCRIPTION	ENTRY
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II. ONLY FOR SITE WITH HRS

Type of
Facility of
Source

C137(1)

B = Chemical Plant
C = City Contamination
L = Landfill
M = Manufacturing Plant
N = Military Facility
F = Other Federal Facility
T = mines/tailings
P = Lagoons
A = Abandoned/Midnight dumping

If unknown,
Type of Waste
Present

R = Radioactive Waste
J = Inorganic Waste
*TBD = Organic Waste
I = Other Industrial Waste
D = Dioxin

If unknown,
Type of Receptor
Affected

V = Waterways/river
H = Housing Area
W = Drinking Water Wells
*TBD = Ecological Receptors
O = Other

Abstract

C201(240)

Site Description
